OPTICAL FILTER DEVICE WITH APERIODICALLY ARRANGED GRATING ELEMENTS

Abstract of the Disclosure

A method for producing aperiodic gratings and waveguides with aperiodic gratings uses a simulated annealing process that starts with a random configuration of grating elements and iteratively computes a spectral response from a Fourier transform of the configuration of grating elements obtained in successive iterations. A cost function is computed as a convergence criterion. The aperiodic grating can be used, for example, as a filter in WDM applications.